

Patent Claims

1. A mounting frame for securing a baby seat in a motor vehicle that is provided with special-duty baby-seat anchors near a vehicle seat and solidly connected with the vehicle frame and/or the vehicle seat, characterized in that the mounting frame (3 or 13) has a mounting part (23) provided at one end with retaining elements (24) for releasable connection of the mounting frame (3 or 13) to the fixed vehicle baby-seat anchors (5) and at the other end with a brace part (8) that is braced forward of the vehicle seat on the vehicle floor (4) or on the frame and that in the installed condition of the mounting frame extends at an acute angle forward and downward.

2. The mounting frame according to claim 1, characterized in that the brace part (8) forms with the vertical an angle of 10° to 15°.

3. The mounting frame according to claim 1 or 2, characterized in that the mounting part (23) is provided with latch elements (12 and 18) that fit with latch elements (10 and 17) carried on the baby seat.

4. The mounting frame according to one of claims 1 to 3, characterized in that with a mounting frame for a backward-facing baby seat the mounting part (23) has when installed a generally

horizontal mounting leg (23a) and a rearwardly downwardly inclined anchor part (23b) that are preferably reinforced with a brace plate (26), the mounting leg (23a) being connected via a fixable pivot (25) for bracing against the back (7) of the motor-vehicle seat with an upwardly angled rear brace bow (11).

5 5. The mounting frame according to one of the preceding claims, characterized in that the retaining elements (24) are movable by connector rods (28) out of engagement with the vehicle-fixed baby-seat anchors (5).

10 6. The mounting frame according to claim 5, characterized in that the handle (30) is provided with an indicator (31) that shows the released or latched condition of the retaining element (24) by showing the position of the handle (30) relative to the mounting frame.

15 7. The mounting frame according to claim 5 or 6, characterized in that the connector rods (28) extend in longitudinal elements and a transverse rod (29) extends in a rear transverse strut (32) of the mounting part (23) of the mounting frame, the handle (30) projecting out of the transverse strut (32).

20 8. A child restraint device with a baby seat for motor vehicles provided with special-duty baby-seat anchors on a vehicle seat and solidly connected with the vehicle frame and/or the

vehicle seat, characterized in that the baby seat (1) is releasably anchored to a mounting frame (3 or 13) according to one of claims 1 to 7 and engaged over a motor-vehicle seat.

5 9. The child restraint device according to claim 8 and one of claims 3 to 7, characterized in that the baby seat comprises a mounting device that releasably attaches to the mounting frame (3 or 13) and that is provided with at least one latch element (10 or 17) that is movable between a freeing position and a latched position and that can be fitted in the freeing position into the
10 latch elements (12 and 18) fixed on the mounting frame and that in the locking position is movable for solidly locking the baby seat with the mounting frame (3, 13) in the rigid latch elements (12) of the mounting frame (3 and 13).

15 10. The child restraint device according to claim 9, characterized in that the mounting device has near a baby-seat back wall and parallel to it when installed a horizontal latch shaft (10) that is provide at least on its ends at two sides and preferably along its entire length with parallel and diametrically opposite flats (9), the latch shaft (10) being pivotal about its
20 longitudinal axis out of a freeing position with the flats (9) generally vertical into a latched position with the flats (9) generally horizontal and that the longitudinal sides of the mounting frame are provided with two rigid lateral latch elements (12) that are oriented opposite each other and that each have a

vertical slot (14) for an end of the latch shaft (10) and formed with a lower undercut cylindrical seat (15) in which the end of the latch shaft (10) can move from its freeing position into its latched position.

5 11. The child restraint device according to claim 10, characterized in that the lateral latch elements (12) of the mounting frame (3 or 13) are V-shaped and upwardly flared slots (14) and the latch shaft (10) has control pins (27) that turn the latch shaft (10) into the freeing position when the baby seat is
10 set on the mounting frame by engagement of the control pins (27) of the latch shaft (10) on edges of the slots (14) of the latch elements (12) of the mounting frame (3 or 13).

12. The child restraint device according to claim 9, 10, or 11, characterized in that the mounting device has near the baby-
15 seat front edge a central latch pin (17) shiftable in the vehicle longitudinal direction, carried on a front strut (19) of the mounting frame (3 or 13), and having a longitudinally open hole (20) in which the latch pin (17) is longitudinally engageable to solidly lock the car seat (1) with the mounting frame (3 or 13).

20 13. The child restraint device according to one of claims 9 to 10, characterized in that the mounting device has an actuating device (22) for the latch element (10 or 17) by means of which all of the latch elements (10 and 17) are shiftable into

their respective latched position when the baby seat is fully fitted to the mounting frame (3 or 13).

14. The child restraint device according to claims 10, 12, and 13 and if necessary to claim 11, characterized in that the actuating device is provided with one and preferably two knobs (22) provided at ends of the latch shaft and serving to rotate the latch shaft (10) as well as a longitudinally extending rigid crank arm (21) that couples the latch shaft (10) with the latch pin (17) and that converts a rotation of the latch shaft (10) into a sliding of the latch pin (17).

15. The child restraint device according to claims 13 or 14, characterized in that the actuating device has biasing element, e.g. a weight or spring, urging the latch elements (10 and 17) automatically into the latched positions and by means of which installing the baby seat (1) puts them back in their blocking position when the baby seat (1) is fully fitted to the mounting frame (3 or 13).

16. The child restraint device according to one of claims 8 to 16 and one of claim 5 to 7, characterized in that the housing (33) of the baby seat has on its side turned toward the mounting frame recesses for receiving the mounting frame and in particular for receiving the handle in the latched position of the mounting elements.